UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/620,290	07/15/2003	Helmut Meyer	22610	7719

535 7590 11/30/2005

THE FIRM OF KARL F ROSS
5676 RIVERDALE AVENUE
PO BOX 900
RIVERDALE (BRONX), NY 10471-0900

EXAMINER	
EWALD, MARIA VERONICA	

ART UNIT	PAPER NUMBER
1722	

DATE MAILED: 11/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/620,290	MEYER, HELMUT	
	Examiner	Art Unit	
	Maria Veronica D. Ewald	1722	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 August 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *15 July 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

13. Claim 1 is objected to because of the following informalities: The last line of the amended claim states "...ends of he bearing". The word "he" is incorrect and should be corrected to state "the bearing." In addition, Claim 2 is also objected to because the third line of the amended claim states "...and outer ring coaxial with..." The word "and" is incorrect and should be corrected to state "an outer ring..." Appropriate correction is required.

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1 – 3 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davis, et al. (U.S. 3,993,723) in view of Van Wyk (U.S. 3,199,934). Davis, et al. teach an apparatus for controlling the size of a blown extruded thermoplastic synthetic resin film tube which comprises a calibrating basket (column 6, lines 30 – 35) through which the blown extruded thermoplastic resin film tube passes and formed with guide stirrups (column 6, line 30), each having a multiplicity of tube-contacting film-guide rollers (column 6, lines 27 – 28) disposed along each of the stirrups and supported on

the respective stirrup with a respective roller bearing (column 6, lines 13 – 15). Furthermore, there is a gap provided between neighboring rollers on each stirrup (item 20 – figure 2). Davis, et al., however does not teach that the roller bearing includes roller bodies in a cage enclosed by disks.

In a method to fabricate bearings that can be used in high temperatures, Van Wyk teaches a ball bearing assembly that is comprised of a outer race (item 1 – figure 1) to cover the ball bearing assembly, an inner race to provide an operational base for rotation of the bearings themselves (item 9 – figure 1), a jacket retainer to cover the sides of the assembly (item 2 – figure 1), and a shaped lubricant material to retain each ball bearing (item 5 – figure 1; column 2, lines 25 – 43). This reads on the Applicant's claim that the roller bearing include roller bodies in a respective cage and disks closing the ends of the bearing and further reads on the Applicant's claims that the roller bearings comprise an inner ring fixed to the respective stirrup, an outer ring coaxial with the inner ring and forming the respective roller, an array of said roller bodies between the inner and outer rings, and that the roller bodies are balls.

It would have been obvious at the time of the invention to one of ordinary skill in the art to modify the guide assembly of Davis, et al. to incorporate the roller bearing of Van Wyk for the primary purposes of reducing bearing failure and maintain lubrication as taught by Van Wyk (column 1, lines 13 – 18).

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Davis, et al. in view of Van Wyk and further in view of Yamamoto, et al. (U.S. 6,203,207).

In a method for extending the useful life of a bearing under corrosive conditions or where clean conditions are required, Yamamoto, et al. teaches a roller bearing capable of maintaining lubricity for long periods of time. The roller bearing consists of an outer ring, an inner ring and rolling elements disposed between the rings (column 10, lines 22 –24). Yamamoto, et al. further teaches that one of the inner and outer ring is made of one of the following materials: melt-moldable fluoro-resin, a resin composition comprising the melt-moldable fluoro-resin as a main ingredient and a resin composition in which a fibrous filler and/or solid lubricant is added to a melt moldable heat resistant resin (column 2, lines 34 – 39). This reads on the applicant's claim that one of said rings is composed of a synthetic resin.

It would have been obvious at the time of the invention to one of ordinary skill in the art to modify the guide assembly of Davis, et al. with the bearing assembly of Van Wyk to further incorporate the roller bearing configuration of Yamamoto, et al. for the purpose of maintaining lubrication, reducing friction and minimizing contamination of any parts or components contacted by the roller bearing assembly as taught by Yamamoto, et al. (column 3, lines 10 and 46 – 47).

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Davis, et al. in view of Van Wyk, and further in view of Kondoh, et al. (U.S. 5,222,816). Davis, et al. and Van Wyk teach the characteristics previously described, but neither teaches the use of an anti-adhesion coating on the surface of said outer ring.

In a method for maintaining the lubricity of roller bearings and ensuring that the roller bearings produce little dust, Kondoh, et al. teach a roller bearing in which the outer and inner rings are coated with a solid lubricating film of polytetrafluoroethylene (PTFE) (column 2, lines 15 – 16). This reads on the Applicant's claim that the outer surface of the outer ring has an anti-adhesion coating thereon. The reference teaches that the application of PTFE on the surface of the rings as well as the roller ball itself ensures a low dust production rate of the bearing so that particles do not adhere to components coming in contact with the bearing itself. It also ensures that the frictional resistance remains low, developing superior lubrication performance (column 1, lines 59 – 60).

It would have been obvious at the time of the Applicant's invention to one of ordinary skill in the art to modify the bearing assembly of Davis, et al. with the bearing assembly of Van Wyk to further incorporate the coating of Kondoh, et al. for the purpose of maintaining a high level of lubrication and low dust production so that frictional resistance is low and to ensure that components passing through the guide assembly are not contaminated with any bearing dust produced.

Response to Arguments

15. Applicant's arguments with respect to claims 1 –6 have been considered but are moot in view of the new ground(s) of rejection. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or

motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Applicant has argued that the original Schott, Jr. reference did not teach the use of any roller bearings in connection with guiding blown film and further argued that though the Yamamoto and Kondoh references do teach roller bearings within a cage, there is no suggestion in the Schott, Jr. reference to combine the roller bearings for use in guiding thermoplastic tube.

In addition, Applicant argued that the Planeta reference also contributed nothing to the use of caged ball bearings to the art of guiding thermoplastic tube film. This is correct, however, the incorporation of the Planeta reference was *not* to address the issue of the use of ball bearings but to teach that the rollers have gaps between them.

However, as stated in the rejection above, Examiner has cited the new reference of Davis, et al. that does teach the use of a *roller thrust bearing* to guide the film tube. Though not explicitly disclosing the use of a roller assembly comprising of a caged roller bearing, Davis, et al. do teach that maintaining lubricity and reducing friction are key factors in guiding the thermoplastic tube and thereby, produces an optimum product (column 3, lines 20 – 25). Davis, et al. teach that it is important to decrease the coefficient of friction between the tube and the surface contacting the tube, thereby facilitating passage of the tube (column 3, lines 23 – 25). Thus, the use of the bearing assembly of Van Wyk tackles this problem. In addition, Van Wyk teaches the use of a bearing assembly that is completely enclosed by a jacket retainer. Furthermore, in order

to maintain lubricity and reduce friction, coating the roller assembly as taught by Kondoh, et al. also addresses this issue.

In response to Applicant's argument that the previous art only teaches the use of open ball bearing assemblies instead of closed assemblies as noted by the Applicant, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. Furthermore, Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

Though Applicant has argued that the prior art fails to show the use of disks enclosing the bearing assembly, there is no suggestion in either the amended claims or the original specification as to the advantages or any differences achieved by enclosing the bearing assembly. However, to address the issue of a closed bearing assembly, Examiner has cited the Van Wyk reference which teaches a fully-enclosed bearing assembly for use in atmospheres where lubrication and minimal friction is necessary.

Conclusion

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Maria Veronica D. Ewald whose telephone number is 571-272-8519. The examiner can normally be reached on M-F, 8 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on 571-272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MVE

Joseph S Del Sole
11/28/05
Joseph S. Del Sole